عنوان مقاله:

Mechanical Properties of DPC using Mixture Method

محل انتشار:

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خلاصه مقاله:

Today, the production of concrete curbs with improved properties is very important and economical. Increasing the life time and improving the mechanical properties have always been two key parameters in the production of these curbs. Since porosity is an effective parameter in the durability and life time of the structure and as the compressive strength is a parameter affecting the mechanical properties of these curbs, an attempt has been made in this study to investigate the experiments and the importance of porosity and compressive strength in dry-pressed concrete curbs (DPC). In order to this aim, 27 sample designs (DPC) were prepared based on three cement strength class as 32.5, 42.5 and 52.5 MPa. The water-cement ratio (0.2, 0.25 and 0.3) and the amount of the existing cement (300, 350, 400 kg / m3) in the mixture design were considered along with the proportion of aggregate to cement as the main parameters of the experiment. The results of the compressive strength and the percentage of porosity in the mentioned samples were examined through data analysis and the mixture method. The results obtained by the mixture method point to the role of cement strength in the mechanical properties of concrete.

کلمات کلیدی:

Dry-pressed concrete curbs (DPC), Cement Classification, Compressive Strength, Porosity, Mixture method